

Technical Data Sheet ALUCORE®

Thickness	Unit	6 mm	10 mm	15 mm	20 mm	25 mm
Cover sheet thickness, front	[mm]	1.0 mm				
Cover sheet thickness, rear	[mm]	0.5	0.5	1.0	1.0	1.0
Weight	[kg/m ²]	4.7	5.0	6.7	7.0	7.3

Technical properties							
Section modulus	W	[cm ³ /m]	2.5	4.5	13.1	18.1	23.1
Rigidity	E J	[kNcm ² /m]	7.100	21.900	75.500	138.900	221.600
Alloy / Temper of Aluminium Layers			Peraluman alloy (AlMg), H42 acc. EN 573-3				
Modulus of Elasticity		[N/mm ²]	70.000				
Tensile Strength of Aluminium		[N/mm ²]	R _m ≥ 125				
0.2 % Proof Stress		[N/mm ²]	R _{p0.2} ≥ 80				
Elongation		[%]	A ₅₀ ≥ 5				
Linear Thermal Expansion			2.4 mm/m at 100°C temperature difference				

Core							
Aluminium foils from AlMn alloys (EN AW-3003)							
Bare comprehensive strength		[N/mm ²]	> 2.5				
Weight		[kg/m ³]	> 50				

Surface							
Lacquering			Coil Coating Fluorocarbon based (e.g. PVDF)				
Gloss (initial value)		[%]	30-80				
Pencil Hardness			HB-F				

Acoustical Properties							
Sound Absorption Factor	α _s		0.05				
Airborne sound insulation index (acc. to ISO 717-1, ISO 140-3)	R _w	[dB]	21	21	22	23	25

Thermal Properties							
Thermal conductivity (regarding total thickness, incl. cover sheets)	Λ*	[W/mK]	0.95	1.35	1.78	2.25	2.70
Thermal resistance	R	[m ² K/W]	0.0063	0.0074	0.0084	0.0089	0.0093
Temperature Resistance		[°C]	-40 to +80				